

## **Asymmetric Information and Market Failure: A Market Process Perspective<sup>1</sup>**

Glenn Fox  
University of Guelph  
Email: [gfox@uoguelph.ca](mailto:gfox@uoguelph.ca)

The theory of market failure has dominated welfare economics for nearly a century. Bator's (1958, p. 352) "Anatomy of Market Failure" identified three categories of market failure, namely "generalized indivisibility, public goods, and, last and least, nonappropriability." General indivisibility refers to general problems of monopolization, public goods to situations of non-rival consumption with limited exclusion giving rise to free rider problems and nonappropriability to what are now called externality problems. Bator (1958, p. 354) also lists failure by existence, failure by signal, failure by incentive and failure by structure as an alternative taxonomy of market failure categories. Failure by existence refers to a situation where at least one optimal tangency condition on a production possibilities frontier or isoquant does not exist. Failures by signal and by incentive refer to technical conditions required for profit maximization by firms and failure by structure has to do with situations where small numbers of firms serve a particular market. Bator's normative standard in each of his lists is the theory of

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<sup>1</sup> A previous version of this paper was presented at the International Conference on Markets and Prices, at the University of Toronto in November, 2015. I am thankful for the comments and suggestions received from conference participants.

perfect competition. Failure of actual social situations to conform to the assumptions of perfect competition constitutes market failure.

Economists multiplied categories of market failure in the second half of the 20<sup>th</sup> century. Boadway and Bruce (1984, Chapter 4)) list decreasing costs, what is sometimes referred to as conditions of natural monopoly, non-competitive behavior, when market participants are not exclusively price takers, externalities (arising from a lack of property rights), externalities in production or consumption, public goods and asymmetric information as categories of market failure. Their primary concern on the category of asymmetric information has to do with problems of adverse selection and moral hazard in insurance markets. But they do refer to differences in information between buyers and sellers of used cars, a central topic in Akerlof's paper (Boadway and Bruce, 1984, p. 123). Again, the normative standard is the theory of perfect competition with its assumption of perfectly informed agents. Departures from the assumptions of the theory of perfect competition give rise to inefficiencies. In general, market failures are said to arise when voluntary exchange leads to departures from Pareto Efficiency or Kaldor-Hicks efficiency.

Even in the Walrasian neoclassical economics literature, the existence of market failure is a necessary but not a sufficient condition for an economic justification for government intervention in market exchange relations. It is necessary condition because, in the absence of the documented existence and persistence of a market failure, there is no basis for a claim that government intervention would improve efficiency. But the mere existence of one or more market failures is not sufficient to justify government action, since such action entails the possibility of non-market or policy failure. As Wolf (1979) explained, the policy cure may be worse, in terms of efficiency outcomes, than the market failure disease. So the sufficient condition for an economic justification of policy action by government is that the proposed policy action passes an *ex ante* efficiency improvement test which takes market and non-market failure categories into account. Wolf (1979) called this Implementation Analysis.

Of course, the foregoing is premised on the validity of the efficiency of the Pareto or the Kaldor-Hicks efficiency criteria as concepts. Rothbard (1956, 1979), Hayek (1945), Schumpeter (1943), Kirzner (1973), Cordato (1992) and others Austrians have raised fundamental concerns about the validity of Kaldor-Hicks efficiency as a concept, in particular. Among other things, the application of Kaldor-Hicks efficiency flies in the face of the subjective theory of value and Hayek's (1945) characterization of the nature of knowledge. And the connection between market failure theory and the theory of perfect competition, especially the idea that any departure of the hypothesized requirements for perfectly competitive equilibrium<sup>2</sup> constitutes a market failure and as grounds for action by government, is controversial from a market process perspective.

## **The Paradox of Transaction Costs in Market Failure Theory**

One interpretation of a diagnosis of inefficiency is that potential mutual gains from

2 Although Schumpeter's *Capitalism, Socialism and Democracy* is best known for its exposition of creative destruction, it could more accurately be interpreted as a systematic and compelling critique of the theory of perfect completion, a theory that Schumpeter rejects.

exchange are not being fully exploited. The marginal cost of the supplier of the last unit is less than the value of the marginal benefit of that unit to the buyer. This divergence is the basis for calculations of deadweight losses. But this interpretation of inefficiency begs a question. Why aren't individuals engaging in these apparently mutually beneficial voluntary exchanges? The standard response is that these exchanges don't occur because of the effects of transaction costs. Transaction costs are the value of resources used up in making, or attempting to make, a market exchange. They consist of search costs, which are incurred as potential parties to an exchange undertake efforts to find possible exchange partners, negotiation costs, which are incurred when, after having found one another, potential exchange partners bargain over the terms of the intended exchange, and, finally, concluding costs, which are incurred after a successful exchange when parties verify that they indeed received what they bargained for. So, inefficiency, in the form of apparently mutually beneficial voluntary exchanges that are not consummated, arises because the mutual gains from the exchange in question are less than the transaction costs that would be incurred if the parties undertook to make an exchange. But this creates a quandary for market failure theory. If transaction costs are preventing apparently mutually beneficial exchanges from taking place, then in what sense can we say that market failure leads to inefficiency? Information is not free<sup>3</sup>. But, in the case of transaction costs and the diagnosis of market failure, the conventional theory seems to rest on a normative standard that transaction costs are zero. Another way to frame this question is to ask if transaction costs are real costs. Normally, economic efficiency implies that people are taking all of the relevant costs and benefits into account in making resource use decisions. But the implicit standard in the transaction cost interpretation of inefficiency is a situation where people ignore transaction costs. Carl Dahlman (1979) has suggested that economists would be using their time more productively if the primary focus of their research involved looking for ways to reduce transaction costs.

## **Asymmetric Information as a Category of Market Failure**

This paper examines the category of market failure generally known as asymmetric information, from a market process perspective. Asymmetric information as a category of market failure came to prominence with the publication of George Akerlof's (1970) "The Market for 'Lemons.'" This paper, according to Google Scholar in September, 2015, had received over 22,000 citations. Löfgren *et al* (2002, p. 197) describe Akerlof's 1970 paper as "probably the single most important contribution to the literature on the economics of information," and that it, along with work by Akerlof's co-Nobel recipients Michael Spence and Joseph Stiglitz (Löfgren *et al* 2002, p. 195), has "transformed the way economists think about the functioning of markets."

Akerlof sets out to develop an economic theory markets where goods of varying quality are exchanged. This theory is offered as an explanation of, among other things, certain features of labour markets and also as an explanation of why "Business in underdeveloped countries is difficult". He also suggests that this theory can be used to characterize the economic costs of dishonesty. The second paragraph in the introduction of "Lemons" states

There are many markets in which buyers use some market statistic to judge the quality of

3 See Demsetz (1969) for an insightful analysis of this issue.

prospective purchases. In this case, there is incentive for sellers to market poor quality merchandise, since the returns for good quality accrue mainly to the entire group whose statistic is affected, rather than to the individual seller. As a result, there tends to be a reduction in the average quality of goods and also in the size of the market. It should also be perceived that in these markets social and private returns differ, and therefore, in some cases, governmental intervention may increase the welfare of all parties. Or private institutions may arise to take advantage of the potential increases in welfare which accrue to all parties. By nature, however, these institutions are nonatomistic, and therefore concentrations of power – with ill consequences of their own – can develop. (Akerlof, 1970, p. 488)

The introduction does not explain the nature of the “market statistic” that buyers are characterized as using. Later, in his illustrative example of the markets for new and used automobiles, Akerlof (1970, p. 489) clarifies what he has in mind, stating that, in the market for used cars, “good cars and bad cars must still sell at the same price, since it is impossible for a buyer to tell the difference between a good car and a bad car.” The inferences that Akerlof derives, specifically that bad cars will drive good cars out of the market, even to the point that no transactions take place at all, rest on these two strong assumptions: that products of different quality must sell for the same price and that there is no way for buyers to discern differences in quality. His welfare conclusion that government intervention may increase the welfare of all parties, however, assumes implicitly that while it is impossible for buyers to differentiate between goods of varying levels of quality, this differentiation is possible for the government agency authorized to intervene. Although Akerlof admits that private institutions may arise in response to a demand for product quality information, he concludes that such institutions will be inherently “nonatomistic,” meaning that there cannot be competitive supply of product quality assessment services. There is something about this category of service provision that makes it inevitably susceptible to monopolization. In the penultimate section of the paper, Akerlof identifies some of the types of private institutions that can emerge as responses to limitations of knowledge about variations in product quality. Sellers may offer warranties, shifting the costs of variable product quality from the buyer to the seller. Brand-names and franchising can build consumers’ trust through maintaining consistency in product quality over time and across locations. And occupational licensing can provide assurance of qualifications, including educational achievement, can mitigate uncertainty about quality in services. But this discussion does not explain the basis for Akerlof’s claim that these institutions are inherently nonatomistic.

### **The Market Process Perspective**

One of the aims of this paper is to contrast the market process perspective on market exchange relationships in the context of variations in product quality with the Walrasian neoclassical perspective, as represented by Akerlof’s analysis. Both perspectives take the existence of variations in product quality as a given. Both focus on the demand for and supply of information. Both reach welfare conclusions. But the foundational assumptions, and consequently, the inferences reached, are in stark contrast. The primary difference between the two perspectives has to do with the characterization of the nature and the distribution of

knowledge about, in this context, knowledge about product quality. The Walrasian neoclassical perspective assumes that objective knowledge of product quality exists and that it is known at least in part by sellers and that it is known in its totality by a typically unnamed entity or individual, but that it is not known and cannot be known to buyers. This objective knowledge of product quality is generally represented as a unidimensional index, with high index values representing high quality and low index values representing low quality. The Walrasian neoclassical perspective emphasizes the role of information as an input to market exchange. The market process or Mengerian/Austrian/Hayekian neoclassical view, in contrast, differentiates between objective and subjective categories of knowledge and rejects the idea that any individual or agency is capable of knowing the totality of subjective knowledge, which is characterized as distributed in the minds of individuals. The Mengerian/Austrian/Hayekian neoclassical perspective emphasized the importance of information as an output of market exchange. There may be objective aspects to some quality attributes of used cars, such as the age of the car and the cumulative miles driven over its lifetime, but there are subjective elements as well. Classic cars may attract a price premium from some buyers but not from others. Some people like red cars and other people prefer blue cars.

### **An Empirical Study of the Lemons Problem**

Eric Bond (1982) analyzed the market for used pickup trucks in the United States, looking for evidence of Akerlof-type lemon effects. This market would appear to be a prime location to look for such effects. Pickup trucks are utilitarian vehicles used for agricultural, commercial and personal purposes and they are often “rode hard and put away wet.” Bond, used data on trucks between one to five years old from the *1977 Truck Inventory and Use Survey*, which is part of the U.S. Census of Transportation. He compared the maintenance required by trucks purchased used and trucks purchased new, adjusting for vehicle age and mileage. He found no difference in maintenance requirements across the two populations and concluded that the market for used pickup trucks had not degenerated into a market for lemons.

Bond tests a somewhat weaker version of Akerlof’s hypothesis, in that he was looking for evidence of lower quality in trucks that had been sold as used vehicles compared to trucks sold new, controlling for age and mileage, and that this would result in a reduced volume of transactions in the used pickup truck market than what would be consistent with efficiency. The strong version of Akerlof’s hypothesis is that bad products would drive good products out of the market completely and there would not be any transactions at all. Clearly, there is a well-developed market for used pickup trucks in the United States. Bond makes a passing reference (in footnote 6, p. 274) to a finding that pickup truck owners who report doing their own maintenance are more likely to purchased used trucks. This goes to the heart of one of Akerlof’s foundational assumptions, that buyers cannot assess product quality. An assumption of informationally homogeneous consumers is at variance with the division of knowledge that exists in actual markets for used vehicles. In addition, service records, independent mechanical evaluations and inspection by experienced vehicle owners can all mitigate lemons effects in actual markets. People who do more of their own automotive maintenance acquire differentiated

knowledge relative to people who don't do their own mechanical work. This knowledge provides a basis for buyers to assess product quality. They can use this knowledge in their own purchasing decisions, they can offer advice informally to family and friends, and can even offer used vehicle assessment services to others, probably subject to some certification requirements.

## **A Market Process Critique of Asymmetric Information Theory**

From a market process perspective, there are three main problems with the state of market failure theory on the question of asymmetric information. The first problem is that the theory is often over-generalized, along the lines of “asymmetric information causes market failure (inefficiency).” What economists generally have in mind is really “Fraud causes market failure (inefficiency).” Asymmetric information is a broader category of phenomena than fraud. If fraud is the primary underlying concern, this has implications for the nature of the research program that economists should develop to address the inefficiencies arising from dishonesty.

The second problem is that the current theory, which rests on a foundation of the theory of perfect competition, assumes away the process of social coordination and adaptation to change that is central to the market process perspective.

A third problem is that the existing theory fails to acknowledge problems of asymmetric information in the policy process. In doing so, it commits what Demsetz has called the Nirvana Fallacy, comparing the performance of actual social institutions with an idealized government solution. A more balanced approach is needed.

## **The Division of Labour and the Division of Knowledge**

Adam Smith, Ludwig von Mises and Friedrich Hayek all emphasized the division of labour as integral to social progress. Hayek (1945) linked the division of labour and specialization to the division of knowledge. The division of labour and the specialization that it requires leads to a distribution of knowledge among individuals, knowledge that they acquire in the pursuit of their specializations. Hayek (1945) explains that much of this knowledge is tacit and subjective. A considerable portion of the knowledge of the specialist is acquired in experiences occurring after the completion of formal education. Given the unique experiences of practitioners of a particular profession or trade, we should expect differentiation of the knowledge possessed by individuals. And differentiated perspectives across professions and trades, each with its own set of personal experiences of practitioners, generate even more asymmetric information.

Adam Smith's thesis is that the division of labour is the engine of social progress. He also argues that the division of labour is limited by the extent of the market. A more complex system of market exchange facilitates more complete division of labour and knowledge. But the relationship is synergistic. More complete division of labour and knowledge also facilitates extending market exchange relationships. Entrepreneurial alertness, which itself is a form of asymmetric information,<sup>4</sup> forms the basis for increasing the extent of the market,

4 Kirzner defines entrepreneurial alertness as an individual noticing an opportunity that has previously gone

as entrepreneurial action introduces a new good or service in response to the newly perceived opportunity. The division of labour and knowledge also is synergistic with the extent of the market in that individuals pursuing more and more specialized roles become less and less self-sufficient and need the voluntary cooperation and mutually beneficial exchange relationships with other increasingly specialized individuals to sustain themselves. The architect may not know how to raise wheat, grind flour and bake bread. And the baker may not know how to design the building in which the bakery operates. So they possess asymmetric information. But this very asymmetry is necessary for the social progress that is driven by their specializations.

There is a second sense in which a market process perspective sheds light on information asymmetry as a category of knowledge and clarifies the scope of what economists should really have in mind when they talk about problems of asymmetric information. Every market exchange involves asymmetric information. Without asymmetric information, not only would there be no Smithian social progress, there would not be any market exchanges at all. Praxeology teaches us that for a market exchange to occur, the buyer must value what the seller is offering more than what the buyer gives up in the exchange. And the seller must value what the buyer is offering more than what the seller has to give up. Asymmetric valuations are therefore necessary for market exchanges to occur. As Hayek (1945) explained, valuations are part of the important, but often academically undervalued, category of knowledge of the particular circumstances of time and place. If buyers and sellers were not in possession of asymmetric information, they would have no interest in exchange. In addition of values or preferences, individuals also act on the basis of subjective perceptions and expectations.

As Kirzner (2005) and Mises (1998, p. 325) explained, there is a difference between knowledge and information. Two people when confronted with the same information (data) may very well interpret it differently. Until recently, I regularly drove past a derelict vehicle in the village where I live. This vehicle had no wheels, did not appear to have an engine or windows. To me, it was an eyesore. So I was surprised one day to drive past and see that the owner, with a can of spray paint, had placed a notice on the side of the car: "NOT FOR SALE." It turns out that what I saw as a derelict piece of scrap metal was the remains of a classic 1970s muscle car, and the owner did not want any more people knocking on his door asking to buy it. I had the same information as others who had driven by. But I interpreted that information differently from people who had knowledge of classic 1970s muscle cars. The car is no longer there. I assume that, eventually, some bold individual ignored the painted warning and offered the owner terms that made a transaction attractive. Differences in expectations across individuals interpreting essentially the same data manifest themselves in exchanges in securities. One person offers 100 shares in the X Corporation on the stock exchange. Another person offers to purchase those same shares. They have different expectations of the future prospects of the X Corporation, even though they see the same historical data. Without asymmetric information, there would be no market exchanges. So how can an essential requirement for market exchange be a category of market failure?

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unrecognized. This implies that the individual noticing the opportunity knows something that not only no one else knows, but that even the individual himself or herself has not noticed previously.

I think that the answer to the question just posed is that economists are over-generalizing when they use the term asymmetric information. I think that what they really have in mind is fraud. Akerlof (1970) interpreted his own analysis as providing a framework to study the economic costs of dishonesty. Unfortunately, Akerlof rests his model on four assumptions which are antithetical to a praxeological market process approach and which close the door to the type of analysis which might shed light on the emergence and adaptation of social institutions to address problems of dishonesty. Akerlof assumes that

1. There are variations in quality for the category or goods or services under consideration
2. Buyers cannot assess the quality of individual units of the good or service in question, but that sellers are able to assess quality
3. All units of the good or service must sell for the same price
4. Any services that might arise as independent sources of quality evaluation are non-atomistic, meaning that they are prone to monopolization

He concludes that markets for goods or services under these conditions will be underdeveloped or even fail to emerge. It is difficult to quarrel with the internal logic of Akerlof's model. Under the hypothesized conditions with two homogeneous groups of individuals, it is difficult to see why exchange would take place. But the market process perspective challenges the reasonableness of the hypothesized conditions as a characterization of actual market exchange relationships. Akerlof treats his assumptions as axiomatic, in the sense that they are offered without empirical justification or argumentation. It is not difficult to accept that goods or services in a given category might vary in quality. The concept of a category of goods or services, however, is problematic. Are bicycles and motor-cycles in the same category? What about mountain bikes and road racing bikes? Is a child's bicycle at the local hardware store in the same category as the machine used by a competitive cyclist? Categories of goods or services inevitably involve arbitrary subjective criteria on the part of the person defining the category. Therefore variations in the attributes of goods or services in a category rest on those subjective criteria. And variations in quality represent subjective assessments of the variations in attributes. So the parent looking to purchase a first bicycle for a child might view that bicycle at the local hardware store as high quality and the competitive racing bicycle as low quality for the intended purpose of teaching a child to ride. Obviously, the competitive cyclist would have a different assessment of the quality of the attributes of the two bicycles.

But the second assumption, that buyers cannot discern differences in the quality of individual units offered for sale is more problematic from a market process perspective. First, it assumes that all buyers are identical. There can be no division of labour and no division of knowledge among buyers. Buyers cannot learn or discover ways of evaluating product quality. This is what Roderick Long (2006) explains is a precise abstraction. It specifies a characteristic, in this case a characteristic of buyers, which is absent. Buyers cannot learn or discover. In Long's words (Long, 2006, p. 10) "Those who criticize neoclassical models for their lack of realism are not seeking a precise abstraction that *more closely*<sup>5</sup> approximates reality; rather, they are seeking an abstraction that is not precise at all." In contrast, Long (2006, p.

5        Italics in original



16) proposes non-precise abstractions that apply “in the same way in every single instance to which they refer.” Examples would include abstractions like individuals possess the capacity for entrepreneurial alertness or that every human action is an attempt to move from a less desired state to a more desired state. These abstractions are non-precise in that they don’t specify a characteristic that is absent. They don’t require that all individuals possess the same degree of entrepreneurial alertness or that all actions are equally successful in realized the intended outcomes. These non-precise abstractions are central to a market process, praxeological approach to problems of dishonesty.

Akerlof’s third assumption, that all units of the good in question must sell at the same price, is another example of a precise abstraction. Price variation across goods with different attributes cannot occur. The market process perspective asks “Why not?” Actual markets generate variation in prices for products with different attributes. While it may be the case that buyers know less about the attributes of some products than sellers, this does not prevent rivalrous sellers from marketing their wares by emphasizing differentiation in a competitive market process. And buyers can learn from both their own experiences and the experiences of others. Of course, a buyer can also be in a position to know more about the value of a particular item than the seller. Reality shows like *The Antiques Roadshow* and *American Pickers* illustrate these situations in prime time television.

Akerlof’s fourth assumption is that any efforts on the part of sellers or third party certifiers to offer quality evaluation services are non-atomistic, meaning that these services are subject to monopolization. Later in his paper, Akerlof (1970, p. 499-500) acknowledges that sellers can offer warranties, can build reputations for honest dealing, including brand names and franchising, and that professional licensing, educational credentials and certification can allay buyers concerns about poor quality products. He does not, however, in this discussion, indicate why these emergent institutions are inherently nonatomistic. And this list does not include the option of differentiated learning and discovery on the part of buyers. Akerlof’s illustrative example to motivate his model is the market for used cars. Eric Bond’s (1982) empirical study of the market for used pickup trucks in the United States reveals that buyers consider age, mileage and documentation of maintenance (in the form of vehicle service records) as practical means of assessing vehicle attributes. He also observes that buyers of used pickup trucks tend to do more of their own vehicle maintenance than do buyers of new pickup trucks, suggesting that there is a division of labour and knowledge at work. Independent mechanical assessments are also available on a local and competitive basis for potential buyers who may themselves rarely handle a wrench. So, in this assumption also, we see a precise abstraction. Quality assessment services cannot be offered on a competitive basis. The market process perspective offers a non-precise abstraction: that buyers may develop or seek out specialized knowledge in a rivalrous market process to obtain information to help them assess product attributes.

## **Asymmetric Information in the Austrian Economics Literature**

The concept of asymmetric information has played a critical role in the Austrian neoclassical

economics literature, although the implications of the concept in that literature pertain more to policy or non-market failure than has been the case in the contemporary Walrasian neoclassical literature. Three prominent topics in the Austrian economics literature, the theory of entrepreneurial alertness, the economic calculation debate and the Austrian theory of the business cycle all involve consideration of the effects of asymmetric information. More recently, Tom DiLorenzo's (2011) recent characterization of U.S. foreign policy can be added to this list.

The definition of entrepreneurial alertness is that one person notices an opportunity that has previously gone unnoticed, which results in a condition of asymmetric information. Only the person with the perception has that knowledge. The theory of entrepreneurial discovery offers important insights into the validation of that asymmetric knowledge. Not all entrepreneurial perceptions are valid. A person might perceive an opportunity where no actual opportunity exists. Acting on this entrepreneurial knowledge leads to entrepreneurial error.

The Austrian position in the economic calculation debate invokes a problem of asymmetric information faced by the central planner. The planner cannot acquire all of the required knowledge of the particular circumstances of time and place to perform economic calculation in the absence of market exchanges in factors of production. Without economic calculation, the planner's allocation of those factors to different employments is arbitrary.

Asymmetric information is at the core of Austrian Business Cycle Theory. Entrepreneurial error is a normal part of the market process. Entrepreneurial perceptions are not always correct and actions based on those perceptions can fail, as part of the competitive process of discovery described by Hayek (1978). Austrian Business Cycle Theory offers an explanation of what might elevate the rate of entrepreneurial error above its normal or background level. Rothbard (1983, p. 16) uses the term cluster of entrepreneurial errors to describe this situation. Mises (1998, pp. 535-583) attributes this elevated rate of entrepreneurial error to credit expansion. But this creates an apparent paradox. Why can't these perceptive entrepreneurs differentiate between price signals that convey information about underlying changes in supply and demand conditions and price signals that are distorted by credit expansion? The answer seems to be that those entrepreneurs face an asymmetric information problem. They can't see the actions of monetary authorities that lie behind the product and factor prices that they use for economic calculation. Professor DiLorenzo (2011) has recently identified an asymmetric information problem in U.S. fiscal and foreign policy. Rationally ignorant voters are not and cannot be well informed about the decisions and operations as an organization as complex as the Government of the United States. Decisions are often driven by insiders and interest groups with agendas that are not well understood by citizens. Deliberations are conducted in secret, based on considerations that are not transparent. According to DiLorenzo, imprudent fiscal policy at the state and national levels as well as foreign policy can go in directions not expected by voters. He makes specific mention of the decision on the part of the United States to invade Iraq in 2003, based on the claim that Saddam Hussein had weapons of mass destruction and intended to use them against the United States, a claim that was subsequently shown to be without foundation.

## **An Economic Research Program to Address the Effects of Dishonesty**

If, when economists use the expression asymmetric information, they really mean problems arising from fraud and dishonesty, then a refocused research program would be more productive. Akerlof suggests, but then dismisses, what he calls counteracting institutions, including product warranties or guarantees, the emergence of brands, reputations and franchising and licensing and educational credentials as responses to the problems arising from variations in product quality. A more expansive list might include consideration of the ability of consumers to acquire, either for themselves or with the assistance of someone else, differentiated knowledge that would enable them to undertake the type of product quality assessment that Akerlof assumes is impossible for them to do. Other disciplines, such as generally accepted accounting practices and auditing principles and practices developed in accounting and types of safeguards that have emerged in contract law would also be profitable areas for economic inquiry in response to the problem of dishonest dealing. Informal networks, cooperatives, independent providers of product assessment services and product grading standards for food, set either by governments or by private firms in food manufacturing, distribution and retailing as part of their procurement systems would also be useful areas to study. The Walrasian neoclassical economics literature has generally not pursued the systematic study of these areas as part of its research program to understand and address the problems of fraud and dishonesty in market exchanges.

Israel Kirzner (1973, Chapter 6) identifies what he calls the fundamental flaw in welfare economics as an assumption that economists know things that they do not and cannot know. In particular, welfare economics in the Walrasian neoclassical tradition assumes that economists “*possess all the relevant information concerning the given system of preferences and the various means available*” (Kirzner, 1973, p. 213, italics in original). Acknowledging Hayek’s (1945) contribution, professor Kirzner goes on to explain that the problem facing society is not one of allocating known scarce means among known ends, but rather a problem of mobilizing dispersed, partial and fragmented knowledge in a process of social coordination. Markets, from this perspective, are not mechanisms that use information to produce efficiency. They are necessary institutions for coordinating, validating and communicating information that is otherwise not observable. As Hayek (1945) explained, market prices do not perfectly embody all of the knowledge in a society, they are rather necessary means for indirectly accessing information that would otherwise be inaccessible. Kirzner’s criticism continues to apply in the context of the contemporary welfare economics literature on asymmetric information. The implicit assumption that the economist knows the truth about products of various degrees of quality and can determine, objectively, the efficient level of production, is still maintained. A market process perspective, in contrast, rests on assumption that economists are not in a privileged position when it comes to knowledge of preferences, resources and opportunities.

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